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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,485	07/20/2001	Mark B. Lyles	068986.0102	1620

7590 01/13/2003  
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EXAMINER

SULLIVAN, DANIEL M

ART UNIT	PAPER NUMBER
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1636

DATE MAILED: 01/13/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/910,485

Applicant(s)

LYLES, MARK B.

Examiner

Daniel M Sullivan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-17,35-40,42,47 and 53-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-17,35-40 and 42 is/are allowed.
- 6) ☒ Claim(s) 47 and 53-64 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9, 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Non-Final Office Action is a reply to the Response under 37 C.F.R. 1.111 filed December 20, 2002 (Paper No. 12) in response to the Final Office Action mailed June 21, 2002 (Paper No. 8). Finality of the previous Office Action is herewith **WITHDRAWN**.

Claims 5 and 35-38 were amended, claims 18-34, 41, 43-46, and 48-52 were canceled and claims 53-64 were added in Paper No. 12. Claims 5-17, 35-40, 42, 47 and 53-64 are presently pending and under consideration.

#### ***Response to Amendment***

All rejections as they pertain to claims 18-34, 41, 43-46, and 48-52 are rendered moot by the cancellation of those claims in Paper No. 12.

Rejection of claim 5, and claims depending from claim 5, under 35 U.S.C. § 102(e) as being anticipated by Li *et al.* is withdrawn in view of the amendments to claim 5 in Paper No. 12.

#### ***New Grounds***

#### ***Claim Objections***

Claims 5 and 40 are objected to because of the following informalities: Claim 5 is contains several misspelled words (e.g. phynylalanine should be phenylalanine, trytophan should be tryptophan). In claim 40, dimethyl sulfa oxide should be dimethyl sulfoxide. Applicant is

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urged to review the entire disclosure and correct any additional typographical errors therein.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 54 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is directed to the method of claim 47 wherein the nucleic acid is DNA of an average size of at least 100 base pairs. The nucleic acid of claim 47 is, however, "greater than 5000 base pairs". It is therefore unclear how the size limitation of claim 54, greater than 100 base pairs, further limits the nucleic acid of claim 47, which is *at least* 5000 base pairs.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 47 and 53-63 is rejected under 35 U.S.C. 102(b) as being anticipated by Li *et al.* (1996) WO 96/01617 (made of record in the IDS filed July 26, 2002, Paper No. 9).

Li *et al.* teaches a method to reduce absorption of ultraviolet light by the skin of a mammal comprising providing a formulation comprising a nucleic acid and applying said formulation to the skin of a mammal. In the first full paragraph on page 12, Li *et al.* teaches that the nucleic acids comprised by the formulation include DNA fragments sized *approximately* smaller than 5 kb. As the nucleic acid molecules of Li *et al.* are produced by random cleavage of

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high molecular weight DNA, the formulation of Li *et al.* would inherently comprise nucleic acid molecules having a molecular weight greater than 5 kb. The formulation of Lie *et al.* anticipates claims of the instant application because, given their broadest reasonable interpretation, the claims encompass a method of using any formulation comprising *at least one* nucleic acid having a molecular weight greater than 5000 base pairs. The teachings of Li *et al.* therefore anticipate claims 47-62.

In claim 12, Li *et al.* explicitly sets forth that the formulation can be used to absorption of ultraviolet light by the skin of a human; thus the teachings of Li *et al.* also anticipate the limitations of the instant claim 63.

#### ***Allowable Subject Matter***

Claims 5-17, 35-40 and 42 are allowed.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel M Sullivan whose telephone number is 703-305-4448.

The examiner can normally be reached on Monday through Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached on 703-305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9105 for regular communications and 703-746-9105 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

dms

January 7, 2003



**JAMES KETTER**  
**PRIMARY EXAMINER**